



PCT

RAW SEQUENCE LISTING DATE: 02/26/2005
PATENT APPLICATION: US/10/524,630 TIME: 10:51:49

Input Set : A:\PH-1850PCT-USsequencelisting.txt
Output Set: N:\CRF4\02262005\J524630.raw

3 <110> APPLICANT: National Institute of Advanced Industrial Science and Technology
5 <120> TITLE OF INVENTION: A novel lysozyme sensitive microorganism
7 <130> FILE REFERENCE: PH-1850-PCT
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/524,630
C--> 10 <141> CURRENT FILING DATE: 2005-02-16
12 <150> PRIOR APPLICATION NUMBER: JP 2002/239554
13 <151> PRIOR FILING DATE: 2002-08-20
15 <160> NUMBER OF SEQ ID NOS: 2
17 <170> SOFTWARE: PatentIn Ver. 2.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 5108
21 <212> TYPE: DNA
22 <213> ORGANISM: Artificial Sequence
24 <220> FEATURE:
25 <223> OTHER INFORMATION: Description of Artificial Sequence: Plasmid pHN144
27 <400> SEQUENCE: 1
28 gagctcgacc gcgcgggtcc cggacgggaa agagcgggaa gctttgccag agagcgacga 60
29 cttcccttg cgttgggtat tgccggtag ggcagccatc cgccatcgat gcgttaggggt 120
30 tcacacccca ggaatcgctt cactgaacac agcagccgg aggacgacca tgactgagtt 180
31 ggacaccatc gcaaattccgt ccgatcccgc ggtgcagcgg atcatcgatg tcaccaagcc 240
32 gtcacgatcc aacataaaga caacgtttagt cgaggacgtc gagccctca tgcacagcat 300
33 cgcggccggg gtggagttca tcgaggtcta cggcagcgc acgactcctt ttccatctga 360
34 gttgtggat ctgtgcgggc ggcagaacat accggccgc ctcatcgact cctcgatcgt 420
35 caaccagtgtt tcgaaggggg agcggaaaggc caagacattc ggcatcgccc gctccctcg 480
36 cccggccagg ttccggcgata tcgaggtccgc gctgtgggac gtcgtcgatc tcgacgggt 540
37 gaagatcgatc gggaaacatcg ggcgcatagt acgcacgtcg ctgcgcgtcg gagcgtcggg 600
38 gatcatcctg gtggacagtg acatcaccag catcgccgc cggcgtctcc aaaggccag 660
39 ccggaggttac gtcttctccc ttcccgatcgatc tctctccggt cgcgaggagg ccatcgccct 720
40 cattccggac agcggatgtc agctgtatgac gctcaaggcg gatggcgaca ttccgtgaa 780
41 ggaactcggg gacaatccgg atcggtggc cttgtgttc ggcagcqaaa agggtgcc 840
42 ttccgacactg ttccggagg cgtctccgc ctcgggttcc atccccatga tgagccagac 900
43 cgagtccttc aacgttccg ttccctcgatc aatcgccgtc cacgagaggat tcgacaggaa 960
44 tctcggcc aaccgataag cgcctctgtt cctcggacgc tcgggtccctc gacctcgatt 1020
45 cgtcagtatc gatcacctca cacggcagcg atcaccactg acatatcgatc gtcacacggc 1080
46 gtggccggg cgggcactcc tcgaaggcg ggcgcacgac cttgaacgc tcgatgactc 1140
47 tagagatcc cccggatcccg agctcgatcgatc gtggcactt tcggggaaat gtgcgcggaa 1200
48 cccctatttgc ttatattttc taaatacatt caaatatgtt tccgctcatg agacaataac 1260
49 cctgataat gcttcaataa tattgaaaaa ggaagaggtat ggttattca catttcgt 1320
50 tcggcccttat tccctttttt gcggcattttt gccttcgtt ttttgcac ccagaaacgc 1380
51 tggtgaaatgaaaatgtc gaaatgtatcgat tgggtgcacg agtgggttac atcgactgg 1440
52 atctcaacatcgatc cttggagatc ttccggccgc agaacttgc 1500
53 gcactttaa agttctgcta tgggtgcggg tattatccgc tatttgacgc gggcaagagc 1560
54 aactcggatcc cccgcatac tatttcgtatc atqacttgc tqaqgtactca ccaatgtatca 1620

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/524,630

DATE: 02/26/2005
TIME: 10:51:49

Input Set : A:\PH-1850PCT-USsequencelisting.txt
Output Set: N:\CRF4\02262005\J524630.raw

55 aaaagcatct tacggatggc atgacagtaa gagaattatg cagtgcgtcc ataaccatga 1680
56 gtgataacac tgcggccaac ttacttctga caacgatcg aggaccgaag gagctaaccg 1740
57 ctttttgc aacatgggg gatcatgtaa ctcgccttga tcggtggaa ccggagctga 1800
58 atgaagccat accaaacgac gagcgtgaca ccacgatgcc ttagtcaatg gcaacaacgt 1860
59 tgcgcaaact attaactggc gaactactta ctctagcttc ccggcaacaa ttaatagact 1920
60 ggtatggaggc ggataaagtt gcaggaccac ttctgcgtc ggccttccg gctggctggt 1980
61 ttattgctga taaatctgga gccggtgagc gtgggtctcg cggtatcatt gcagcactgg 2040
62 ggccagatgg taagccctcc cgatcgtag ttatctacac gacggggagt cagggcaacta 2100
63 tggatgaacg aaatagacag atcgctgaga taggtgcctc actgattaag cattggtaac 2160
64 tgcagacca agtttactca tatatacttt agattgattt aaaacttcat ttttaattta 2220
65 aaaggatcta ggtgaagatc cttttgata atctcatgac caaaatccct taacgtgagt 2280
66 ttgcgttcca ctgagcgtca gaccccgtag aaaagatcaa aggtatctt tgagatcctt 2340
67 ttttctcg cgtaatctgc tgcttgcaaa caaaaaaaaacc accgctacca gcggtggtt 2400
68 gtttgcggc tcaagagcta ccaactctt ttccgaaggt aactggcttc agcagagcgc 2460
69 agataccaaa tactgttctt ctatgttagc cgtatgttagg ccaccactc aagaactctg 2520
70 tagcaccgccc tacatacctc gctctgctaa tcctgttacc agtggctgt gccagtggcg 2580
71 ataagtcgtg tcttaccggg ttggactcaa gacgatgtt accggataag ggcgacggt 2640
72 cgggctgaac ggggggttcg tgacacacgc ccagcttggc gcgaaacgacc tacaccgaac 2700
73 tgagataacct acagcgtgag ctatgagaaa ggcacacgc tcccgaaaggg agaaaggcgg 2760
74 acaggtatcc ggtaaagcggc agggtcgaa caggagacg cagcggggag cttccagggg 2820
75 gaaacgcctg gtatcttat agtcctgtcg ggttgcctca cctctgactt gacgctcgat 2880
76 ttttgcgtat ctcgtcaggg gggcggagcc tatggaaaaa cgccagcaac gccccttt 2940
77 tacggttcct ggcctttgc tgcccttttgc ctcacatgtt ctttcctgcg ttatccccgt 3000
78 attctgtgga taaccgtatt accgccttttgc agtgagctga taccgctcgc cgcagccgaa 3060
79 cgaccgagcg cagcgtca gtgagcggg aagcgaaga ggcggcaata cgcggccgc 3120
80 ctctccccgc gcgttggccg attcattaaat gcagctggc cgtactgtt tacaccggag 3180
81 aagctcccgag cgtccttcgt gggcgcgata ctcgaccacc acgcacgcac accgcactaa 3240
82 cgattcggcc ggcgtcgtat tcggccggcg ctcgattcgg ccggcgctcg attcggccgg 3300
83 cgctcgattc ggccggcgct cgattcggcc gacgagaaga gtgaacaacc accgaccacg 3360
84 cttecgctct gcgcgcgtat cccgacccatc ctccccgcgc tcgaagcgcg tccccggagt 3420
85 accgcccgtac tcacccgcct gtgtcacca tccacccgcg caaagccca cccgagcaca 3480
86 cctcttgcac caaggtggccg accgtggctt tccgctcgc ggggtccaga agaaatcgaa 3540
87 cgatccagcg cggcaagggtt caaaaagcag ggggttggc ggaggaggtt ttgggggtg 3600
88 tcggccggat acctgatatg gctttgtttt gctgtacgataatatttcc atatagcctc 3660
89 ggcgcgtcg actcgaatag ttgtatgtggg cgggcacagt tgccccatga aatccgcaac 3720
90 gggggcgtg ctgagcgtat ggcataatgggc ggtatggcg ttcgttccgc accggccgtt 3780
91 cgcacgaaac aacctccaac gaggtcagta cggatgagc cgcacgcacg cattggcaat 3840
92 gcggtacgtc gacgttccat cgcacgcgtt gctcgatct atcgatcatcg actgcgtatca 3900
93 cggtacgtcc ggcgtacgcg cattcgagca accatccgac catccggcgc cgaactgggt 3960
94 tgcacaatcg ccgtccggcc ggcacacat cggatggtgg ctcggccccca accacgtgtg 4020
95 cccgacccgac agcgcggac tgcacgcact cgcgtacgc caccgcacatcg aaacccggct 4080
96 caagatcgcg gtcggccggc atttcgcgtat tggcggccaa ctgacccaaa acccgattca 4140
97 ccccgattgg gagacgatct acggccggc caccgcgtac acattgcggc agctggccac 4200
98 catccacaca ccccgccaga tgccgcgtcg gcccgtatcg gccgtggcc tggggccgaa 4260
99 cgtcaccatg ttgcacgcac cccggcgatg ggcatacccg cagtggtggc aacaccgaaa 4320
100 cggaaaccggc cgcgactggg accatctcg tgcacgcac tgccacccg tcaacaccga 4380
101 gttcacgaca ccactgcccgt tcaccgaatg acgcgcacc ggcacatca tctccaaatg 4440
102 gatctggcgc aatttcaccg aagaacagta cgcacgcac caccgcacatc tcgttcaaaa 4500
103 aqgcqqcaaq qcaacqacac tcqccaaaca aqaaqccgtc cggaaacaatq caqaaqaatq 4560

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/524,630

DATE: 02/26/2005
TIME: 10:51:49

Input Set : A:\PH-1850PCT-USsequencelisting.txt
Output Set: N:\CRF4\02262005\J524630.raw

104 cgacgaacat acgatgcgag aggcgattat ctgatggcg gagccaaaaa tccgggtgcgc 4620
 105 cggaaagatga cggcagcgcg agcagccgaa aaattcggtg cctccactcg cacaatccaa 4680
 106 cgcttgggg ctgagccgctg tgacgattac ctccggccgtg cgaaagctcg ccgtgacaaa 4740
 107 gctgtcgagc tgccgaaagca ggggttgaag taccggaaa tcgcccgaagc gatggaaacto 4800
 108 tcgaccggga tcgtcgcccg attactgcac gacgcccgcg ggcacggcga gatttcagcg 4860
 109 gaggatctgt cggcgtaacc aagttagcgg gttgtcggtt tccggccggc gctcggaact 4920
 110 cggaccggcc ggcggatggt gttctgcctc tggcgcagcg tcagctaccc cggaaaggcct 4980
 111 gtcatcgacc ggcttcgact gaagtatgag caacgtcaca gcctgtgatt ggatgatccg 5040
 112 ctcacgctcg accgctaccc gttcagctgc cgcccgctgg gcatgagcaa cggccaactc 5100
 113 tcgttcaa 5108
 115 <210> SEQ ID NO: 2
 116 <211> LENGTH: 8971
 117 <212> TYPE: DNA
 118 <213> ORGANISM: Artificial Sequence
 120 <220> FEATURE:
 121 <223> OTHER INFORMATION: Description of Artificial Sequence: Plasmid pHN170
 123 <400> SEQUENCE: 2
 124 gagctcgacc ggcgggttcc cggacgggaa agagcgggaa gctttgccag agagcgacga 60
 125 cttcccccgt cggtgggtat tgccggtcag ggcagccatc cgccatcgctc gcgttaggggtg 120
 126 tcacacccca ggaatcgctg cactgaacac agcagccgtt aggacgacca tgactgagtt 180
 127 ggacaccatc gcaaataccgtt ccgtatccgc ggtgcagcg gatcatcgatg tcaccaagcc 240
 128 gtcacgatcc aacataaaaga caacgttgcgat cgaggacgtc gagccctca tgcacagcat 300
 129 cgcggccggg gtggagttca tcgaggtcta cggcagcgc acgactctt ttccatctga 360
 130 gttgctggat ctgtcgccgc ggcagaacat accgggtccgc ctcatcgact cctcgatcg 420
 131 caaccagttt ttcaaggggg agcggaaaggc caagacattc ggcatcgccc ggtccctcg 480
 132 cccggccagg ttccggcata tcgaggttcc gctgtgggac gtcgtcgatc tgcacaggg 540
 133 gaagatcgctc gggaaacatcg ggcgcatacg acgcacgtcg ctgcgcgtcg gagcgtcg 600
 134 gatcatcctg gtggacagtg acatcaccatc catcgccgc cggcgtctcc aaaggggccag 660
 135 cccgggttac gtcttcctcc ttcccgatcg tcttcgggtt cgcgaggagg ccatcgccctt 720
 136 cattcggttac agcggatcg acgtatgc gtcacggcg gatggcgaca ttccgtgaa 780
 137 ggaactcggtt gacaatccgg atcggctggc cttgtgttc ggcagcgaaa aggtggggcc 840
 138 ttccggaccc ttccgggggg cgtttccgc ctccggatcc atccccatga tgagccagac 900
 139 cgagtctctc aacgttcccg ttccctcgaa atcgcgtcg cacgagagga tcgacaggaa 960
 140 tctcgccggcc aaccgataag cgcctctgtt cctcgacgc tcggatccctc gacctcgatt 1020
 141 cgtcgtatcgatc gatcacctca cacggcagcg atcaccactg acatatcgag gtcaacggtc 1080
 142 gtgggtccggg cgggcactcc tcgaaggcgc ggccgacgc cttgaacgac tcgatgactc 1140
 143 tagagtaacg ggctactccg tttaacggac cccgttctca cgctttaggc ttgaccccg 1200
 144 agcctcgatg gggcattccg ccgtgaaccc ggtggatgc ccccgccacc cgggtttcc 1260
 145 agcaaagatc acctggcgcc gatgagtaag ggcgtacagaa ccactccaca ggaggaccgt 1320
 146 cgagatgaaa tctaacaatcg cgctcatcgat catccctcgcc accgtcaccc tggatgctgt 1380
 147 aggcatagggc ttgggtatgc cggtaactgcc gggcctctt cggatatecg tccattccga 1440
 148 cagcatcgcc agtcaatcg gctgtctgtc agcgtatcgatc gctgtatgc aatttctatg 1500
 149 cgcacccgtt ctggagcactc tgtccgaccg ctttggccgc cggccagtc tgctcgcttc 1560
 150 gctacttgaa gccactatcg actacgcgtatcatggcacc acacccgtcc tggatgattct 1620
 151 ctacgcccggc cgcacatcgatcc cggcgtatcc cggccaccac ggtgcgggtt ctggcgccata 1680
 152 tatacgccgac atcaccgtatcg gggaaagatcg ggctcgccac ttccgggtatcg tgagcgctt 1740
 153 ttccggcgatcg ggtatgggtt caggccccgtt ggccgggggatcgatcgatcc tggatggggcg 1800
 154 gcatgcacca ttccctcgcc cggcgtatcgatcc aacctactac tggatgggtt 1860
 155 cctaatgcacca ggtcgatcgatcc aacctactac tggatgggtt 1920

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/524,630

DATE: 02/26/2005
TIME: 10:51:49

Input Set : A:\PH-1850PCT-USsequencelisting.txt
Output Set: N:\CRF4\02262005\J524630.raw

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/524,630

DATE: 02/26/2005
TIME: 10:51:49

Input Set : A:\PH-1850PCT-USsequencelisting.txt
Output Set: N:\CRF4\02262005\J524630.raw

205 aagatccttt ttgataatct catgacccaaa atcccttaac gtgagtttc gttccactga 4920
206 gcgtcagacc ccgtagaaaa gatcaaaggta tcttcttgcg atccttttt tctgcgcgta 4980
207 atctgctgct tgcaaacaaa aaaaccacccg ctaccagcgg tggttgggatccaa 5040
208 gagctaccaa ctcttttcc gaaggttaact ggcttcagca gagcgcagat accaaatact 5100
209 gttttctag ttagccgta gttaggccac cacttcaaga actctgttagc accgcctaca 5160
210 tacctcgctc tgctaattcc gttaccagtg gctgctgcca gtggcgataa gtcgtgtt 5220
211 accgggttgg actcaagacg atagttaccg gataaggcgc agcggtcggg ctgaacgggg 5280
212 ggttcgtgca cacagcccgat cttggagcga acgacctaca ccgaactgag atacctacag 5340
213 cgtgagctat gagaaagcgc cacgcttccc gaaggagaa aggcggacag gtatccggta 5400
214 agcggcaggg tcggaacagg agagcgcacg agggagctt cagggggaaa cgcctggat 5460
215 cttatagtc ctgtcggtt tcgcccaccc tgacttgagc gtcgattttt gtatgtctcg 5520
216 tcaggggggc ggagctatg gaaaaacgcc agcaacgcgg ccttttacg gttctggcc 5580
217 ttttgcggc cttttgctca catgttctt cctgcgttat cccctgattt tttggataac 5640
218 cgtattacog ctttgagtg agctgatacc gtcgcccga gccgaacgac cgagcgcacg 5700
219 gagtcagtga gcgaggaaagc ggaagagcgc ccaatacgca aaccgcctt cccgcgcgt 5760
220 tggccgattt attaatgcag ctggcacgac tagagtcccg ctgaggcggc gtagcaggc 5820
221 agccgccccca gcggtggtca ccaaccgggg tggaacggcg ccggtatccgg gtgtgtccgt 5880
222 ggcgcttattt ccaacccctcg tttttttttt caggttccgc gtgttgcaatg ccctcgccacc 5940
223 ggcaccccgca gcgaggggctt caccgggtgcc ggtgggtcga ctatgttattt aatgtatgt 6000
224 atgatgatgc aggtgttca ggatgaaatc cgaaagcaac ttgtgtatc cttcacgatc 6060
225 ctccccacatc gtgagggtcg agcaatccctt gaagacgtga agttccgaac cagctatttt 6120
226 ttcatgtatg actctggcca cttttggcgtt gacccatcg tattcgccca ccgttataag 6180
227 ggtggggatc tttattgcag atatttgtc cgtgatatcc cagtcctta tcgtgcccgt 6240
228 tatggtaac tcattgggc cgttcatat cctgtatacg tttcgccctt ccgggttattc 6300
229 tagtgatttgc agtacccctgg gcccggcaatc ctctgatctc agcagatgt gatggtaaaa 6360
230 gtagttcacg gcctcctgat attctggattt ctcgttaatg ccagatgaaatc cgtatttttt 6420
231 aatggcatct ctgtactttt cccggagctc gtcaatgagc ctgttcatct cttcacccgt 6480
232 cagagggactt gaagataaggc ctccggatacc gatgagccctt ttcagatgtatc cttgggtactt 6540
233 gactgcgtat gcccggccca gcccgtccacc atatgtatc cccatcaaaa ataccccttc 6600
234 gttggccgaaac agctttgatc tttagggccctc tgccctttcc acaccatagt caattgtgaa 6660
235 ttttagactga tccgggttccctt cggatctacc gcatccaaac tgatcgatgaa atagaaccgt 6720
236 tatcccttcc ttggtcatataat ccctgagaga aagcaggtaa tgctgggaca tgccggggcc 6780
237 cccgtgcattt gtcattatgtt ttgctttccctc ctcaggggtt ttgcacagatc tgtaataat 6840
238 ataaaattccg tttacccctt cgtatgttcc tatgcattcc tgatccatgg ccgtccctt 6900
239 ctctgacgccc gtcacccgtc ccccttcacg tgacgtgagg tgcaagcccg gacgttccgc 6960
240 gtgccacggcc gtgagccggcc gcccggccgtc ggctccctca gcccggggcc ccgtgggagc 7020
241 ccgcctcgat atgtacaccc gagaagctcc cagcgttccctc ctggggccgg atactcgacc 7080
242 accacgcacg cacacccgcac taacgattcg gcccggccgtc gattcgccgg ggcgtcgatt 7140
243 cggccggccgc tcgattcgcc cggcgctcga ttccggccggc gctcgatcg gcccggccgaga 7200
244 agagtgaaca accacccgacc acgcttccgc tctgcgcgccc gtacccgacc taccccttc 7260
245 agctcgaaagc agtcccccgg agtaccggcgt tactcaccgg cctgtgtca ccatccaccg 7320
246 acgcaaagcc caacccggacg acaccccttg caccacggtg ccgaccgtgg cttcccgctc 7380
247 gcaggggttcc agaagaataatc gaaacgatcca gcccggccaaat gttcaaaaatc caggggttgg 7440
248 tggggaggag gttttttttttt gttgtccggc gataacctgat atggctttgtt tttgggtt 7500
249 cgaataattt tccatatacg ctcggccgtc cggactcgaa tagttgtatgtt gggccggccac 7560
250 agttggccca tggaaatccgc aacggggggcc gttgtccggc atcggcaatg ggcggatgcg 7620
251 gtgttgcattt cgcacccggcc gtttcggcgtc aacaacccctcc aacgaggatca gtagccggatg 7680
252 acccgccacg acgcattggc aatgcgttac gtcgagcattt caccgcacccg gttgtccgg 7740
253 tctatcgtca tcgactqcgatc tcacqgttgc gcccggccat gccqccatcc qcaaccatcc 7800

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/524,630

DATE: 02/26/2005

TIME: 10:51:50

Input Set : A:\PH-1850PCT-USsequencelisting.txt
Output Set: N:\CRF4\02262005\J524630.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date